AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (currently amended) A datagram transmission device comprising:

first search means that reads the destination address from a received datagram and searches for a transmission control rule corresponding to the destination address;

one or a plurality of second search means that reads prescribed information other than the destination address information from said datagram and that searches for a transmission control rule corresponding to ~~the information that has thus been read~~ said prescribed information;

decision means that respectively inputs search results from said first and second search means and determines said transmission control rule contained in the search results of all of said search means; [[and]]

execution means that executes transmission control in accordance with said transmission control rule determined by said decision means; [[.]]

wherein each of said search means comprises;

a storage for storing said transmission control rule;

and

a bit map for referencing said transmission control rule which is not stored in a storage of itself but stored in a storage of other search means.

2. (original) The datagram transmission device according to claim 1 wherein said first search means and said second search means perform said searches in parallel.

3-5. (canceled)

6. (currently amended) The datagram transmission device according to claim 1 wherein said second search means employs information belonging to the third layer ~~of the protocol~~ in the Open Systems Interconnection (OSI) reference model or a layer above [[this]] said third layer as said information.

7. (currently amended) The datagram transmission device according to claim 1 wherein said second search means employs information belonging to the second layer ~~of the protocol~~ in the Open Systems Interconnection (OSI) reference model as said information.

8. (original) The datagram transmission device according to claim 7 wherein the information belonging to said second layer is information indicating a virtual identifier of asynchronous transfer mode.

9. (currently amended) The datagram transmission device according to claim 8 wherein said transmission control rule is ~~orientation information~~ information for deciding a transmission route.

10. (original) The datagram transmission device according to claim 1 wherein said decision means, after inputting all of the search results of said first and second search means, calculates the logical product of these search results, and outputs the result of this calculation as the decision result.

11. (currently amended) The datagram transmission device according to claim 10 wherein, if said transmission control rule obtained by said first search means ~~is~~ includes only transmission route information, said transmission route information is output as the decision result without carrying out said logical product calculation.

12. (currently amended) The datagram transmission device according to claim 11 wherein, if it is ascertained that said transmission control rule obtained by said first search means ~~is~~ includes

only transmission route information, a control signal is output for interrupting the operation of said second search means.

13. (currently amended) The datagram transmission device according to claim 1 wherein, ~~every time~~ said decision means inputs said transmission control ~~rule~~ rules as the search ~~result~~ results from said first and second search means not at one time, calculates the logical product between already input search results when a prescribed number of said search results have been input, ~~said decision means~~ calculates the logical product between [[the]] said logical product ~~of said search results that have already been input~~ and ~~said newly input transmission control rule~~ other search result whenever said other search result is newly input, and outputs the final calculation result as the decision result.

14. (currently amended) The datagram transmission device according to claim 13 wherein, if said transmission control route obtained by said first search means ~~is~~ includes only transmission route information, said transmission route information is output as the decision result without subsequently performing said logical calculation.

15. (currently amended) The datagram transmission device according to claim 14 wherein, if it is ascertained that said transmission control rule obtained by said first search means ~~is~~ includes only transmission route information, a control signal is output for interrupting operation of said second search means.

16. (original) The datagram transmission device according to claim 1 wherein said first and second search means perform searching using a dichotomizing search method.

17. (original) The datagram transmission device according to claim 1 wherein said first and second search means perform searching using the 2^P search method.

18. (original) The datagram transmission device according to claim 1 wherein said datagram transmission device is an Internet protocol router.

19. (original) The datagram transmission device according to claim 1 wherein said datagram transmission device is an Internet protocol switch.

20. (original) The datagram transmission device according to claim 1 wherein said datagram is an Internet protocol packet.

21. (new) A datagram transmission device comprising:

first search means for route searching, which reads the destination address from a received datagram and searches for a transmission control rule corresponding to the destination address;

one or a plurality of second search means for searching other than route searching, which reads prescribed information other than the destination address information from said datagram, and that searches for a transmission control rule corresponding to said prescribed information;

decision means that respectively inputs search results from said first and second search means and determines said transmission control rule contained in the search results of all of said search means; and

execution means that executes transmission control in accordance with said transmission control rule determined by said decision means.

22. (new) The datagram transmission device according to claim 21 wherein said prescribed information is a type information of the datagram.

23. (new) The datagram transmission device according to claim 22 wherein said type information of datagram is the type information of application.

24. (new) The datagram transmission device according to claim 21 wherein said prescribed information is a data type

25. (new) The datagram transmission device according to claim 24 wherein said data type is electric mail.